

1863
(53)

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ring the year 1862.

Other grain, bushels.	Total, bushels:
3,661,845	51,665,862
251,295	18,733,489
.....	780,902
60,029	1,273,840
3,973,169	72,454,093*
860,357	5,294,327
4,833,526	77,748,420
Milwaukie Railroad.	

Export
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To
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ties of Flour and Grain sent Eastward from t

Other grain, bushels.	1857.		
	Flour, barrels.	Wheat, bushels.	Corn, bushels.

Shipments of Flour and Grain from Ports on Lake Michigan, during the year 1862.

PORTS.	Flour, barrels.	Wheat bushels.	Corn, bushels.	Other grain, bushels.	Total, bushels:
Chicago, by Lake.....	1 037,803	13,466,325	29,248,677	3,661,845	51,665,862
Milwaukee ".....	711,405	14,915,680	9,489	251,295	18,733,489
Green Bay, ".....	95,332	304,242	.....	.....	780,902
Racine, Kenosha, Sheboygan and Port } Washington.....	48,593	903,764	67,082	60,029	1,273,840
Total by Lake.....	1,913,133	29,590,011	29,325,248	3,973,169	72,454,093*
by Railroads.....	686,340	790,146	212,124	860,357	5,294,327
Grand Total.....	2,599,473	30,380,157	29,537,372	4,833,526	77,748,420

* Of this amount 1,317,026 bushels left the Lake at Grand Haven for the Detroit and Milwaukee Railroad.

Table, shewing the quantities of Flour and Grain sent Eastward from

RECEIVED AT	1856.				1857.		
	Flour, barrels.	Wheat, bushels.	Corn, bushels.	Other grain, bushels.	Flour, barrels.	Wheat, bushels.	Corn, bushels.
1. Western Terminus Baltimore and Ohio Railroad	449,797	.....	.....	487,100	426,801	.....	.....
2. Western Terminus Pennsylvania Central.....	215,000	.....	.....	405,872	351,011	.....	.....
3. Dunkirk.....	350,000	.....	.....	.....	235,331	9,266	99,
4. Buffalo.....	1,211,189	8,465,671	9,632,477	2,625,519	925,411	8,383,815	5,720,
5. Suspension Bridge.....	304,524	.....	.....	900,000	180,194	148,138	.....
6. Oswego.....	202,930	8,382,398	3,589,211	619,280	101,363	5,353,026	2,003,
7. Ogdensburg.....	354,964	610,937	377,975	37,432	361,578	598,523	517,
8. Cape Vincent.....	65,000	500,000	45,000	50,000	60,472	477,375	40,
9. Rochester.....	.....	.....	.....	.....	.....	.....	.....
10. Montreal.....	712,038	1 546,352	637,969	67,366	637,052	1,708,965	383,
Total.....	3,865,442	19,505,358	14 282,632	4,592,569	3,279,213	16,679,108	8,765,
Bringing flour to bushels of wheat, we have a total } of Bushels of Grain.....				{ Total movement..... 57,707,769 bushels, { Received at Montreal.. 5,811,877 or 10 per cent.		Total movement..... 44,111,299 Received at Montreal.. 5,315,552	

	1860.				1861.				1862.		
	Flour, Barrels.	Wheat, bushels.	Corn, bushels.	Other grain, bushels.	Flour, barrels.	Wheat, bushels.	Corn, bushels.	Other grain, bushels.	Flour, barrels.	Wheat, bushels.	Corn, bushels.
1.	352,413	.....	.....	126,393	270,000	.....	.....	80,000	690,000	.....	.....
2.	426,660	.....	.....	864,160	1,045,028	.....	.....	1,948,256	890,696	.....	.....
3.	542,765	500,888	644,081	8,843	736,529	604,561	230,400	7,175	1,095,365	112,061	149,
4.	1,122,335	18,502,649	11,386,217	1,632,920	2,159,591	27,105,219	21,024,657	2,532,770	2,846,022	30,435,831	24,288,
5.	650,000	.....	.....	1,875,000	758,915	.....	.....	2,675,948	875,000	.....	.....
6.	121,185	9,449,461	4,966,952	2,043,535	117,087	9,809,495	5,508,799	1,796,213	235,382	10,982,132	4,528,
7.	248,200	565,022	867,014	35,161	411,488	677,386	1,119,594	25,668	580,464	693,684	1,175,
8.	28,940	203,878	73,300	186,597	65,407	276,610	124,411	104,591	48,576	316,403	240,
9.	5,250	425,765	.....	10,725	2,500	520,618	.....	10,990	1,000	150,000	.....
10.	608,309	2,686,728	138,214	915,648	1,095,339	7,738,084	1,565,477	1,795,509	1,174,602	8,534,172	2,661,
	4,106,057	32,334,391	18,075,778	7,698,982	6,691,884	46,731,973	29,573,338	10 977,120	8,437,107	51,224,283	33,053,
Total movement..... 78,639,436 bushels. Received at Montreal.. 6,782,135 or 8½ per cent				Total movement..... 120,741,851 bushels. Received at Montreal.. 16,575,765 or 13½ per cent.				Total movement..... 137,772,441 Received at Montreal.. 18,041,831			

Exports of Flour and Grain from the undermentioned ports during the year 1862.

PORTS.	Flour, barrels.	Wheat, bushels.	Corn, bushels.	Other-grain, bushels.	Total bush. of grain.
Exports from New York.....	2,961,518	25,564,755	12,683,878	1,513,083	54,569,306
" " Philadelphia.....	464,290	1,967,673	1,129,270	778,525	6,196,918
" " Baltimore.....	361,158	515,281	1,026,681	27,138	3,374,890
" " Boston.....	498,185	45,544	222,605	.....	2,759,074*
" " Montreal. By St. Lawrence via Portland....	597,477	6,500,796	1,774,546	739,837	12,002,564
" " Quebec.....	62,955	97,956	8,524	10,207	614,164
Total from the above ports.....	4,945,583	34,692,005	16,845,504	3,068,790	79,948,378

* Of this 205,046 bushels were exports from Montreal via Boston.

Grain sent Eastward from the Lake Regions, from 1856 to 1862 inclusive.

1857.				1858.				1859.			
Flour, barrels.	Wheat, bushels.	Corn, bushels.	Other grain, bushels.	Flour, barrels.	Wheat, bushels.	Corn, bushels.	Other grain, bushels.	Flour, barrels.	Wheat, bushels.	Corn, bushels.	Other grain, bushels.
5,801	.....	.....	256,183	682,314	.....	.....	330,871	466,403	17,800	.....	196,466
.....	.....	.....	206,793	450,000	.....	.....	250,000	350,000	.....	.....	150,000
331	9,266	99,914	14,088	331,007	186,449	94,945	24,965	432,052	263,483	77,014	14,400
4,411	8,383,815	5,720,413	1,321,406	1,614,520	10,735,909	6,621,668	2,789,678	1,502,198	9,559,908	3,151,387	1,993,140
1,194	148,138	.....	.....	200,410	102,694	.....	.....	41,374	57,562	.....	73,346
3,363	5,353,026	2,003,992	370,249	95,720	6,572,432	2,913,618	1,292,424	64,941	4,875,489	804,646	1,342,010
5,578	508,523	517,076	14,740	381,624	790,178	720,236	44,126	294,569	769,010	298,519	64,702
1,472	477,375	40,537	49,408	72,633	410,191	40,000	156,631	9,390	266,735	20,100	216,435
.....	.....	.....	.....	7,110	276,515	.....	9,865	1,764	416,821	.....	8,900
1,052	1,708,965	383,162	38,165	664,275	1,769,482	105,087	136,537	597,583	638,900	71,430	204,652
7,213	16,679,108	8,765,094	2,271,032	4,499,613	20,843,850	10,495,554	5,035,097	3,760,274	16,865,708	4,423,096	4,264,051
movement.....44,111,299 bushels, received at Montreal.. 5,315,552 or 12 per cent.				Total movement.....58,872,566 bushels. Received at Montreal.. 5,332,491 or 9 per cent.				Total movement.....44,354,225 bushels. Received at Montreal.. 3,902,897 or 8½ per cent.			

1862.				<i>Imports of Flour and Grain into Great Britain in 1862.</i>					
Flour, barrels.	Wheat, bushels.	Corn, bushels.	Other grain, bushels.	IMPORTS FROM	Flour, barrels.	Wheat, bushels.	Indian Corn, bushels.	Other Grain, bushels.	Total bushels of grain.
0,000	.....	.....	550,000	Russia.....	.....	10,617,264	Countries	Countries	10,617,264
0,696	.....	.....	1,622,893	Prussia.....	.....	11,603,872	whence	whence	11,603,872
5,365	112,061	149,654	10,173	Denmark.....	.....	1,162,704	imported	imported	1,162,704
6,022	30,435,831	24,288,627	3,849,620	Mecklenburg.....	.....	745,288	.....	.....	745,288
5,000	.....	.....	2,750,000	Hanse Towns.....	115,637	1,253,608	.....	.....	1,831,793
5,382	10,982,132	4,528,962	1,467,823	France.....	355,520	1,798,680	not given in	not given in	3,576,280
0,464	693,684	1,175,176	30,000	Turkey, Moldavia and Wallachia.	.....	3,120,544	the available	the available	3,120,544
8,576	316,403	249,369	49,047	Egypt.....	.....	6,072,288	returns.	returns.	6,072,288
1,000	150,000	.....	6,622	United States.....	2,024,790	29,798,160	.....	.....	39,922,110
4,602	8,534,172	2,661,611	973,046	British North America.....	498,815	6,891,616	.....	.....	9,385,691
7,107	51,224,283	33,053,399	11,309,224	Other countries.....	248,388	2,690,136	.....	.....	3,932,076
movement.....137,772,441 bushels. received at Montreal.. 18,041,839 or 13½ per cent.				Total.....	3,243,150	75,754,160	2,774,751	4,167,808	98,912,463*

* This total includes the third and fourth columns.

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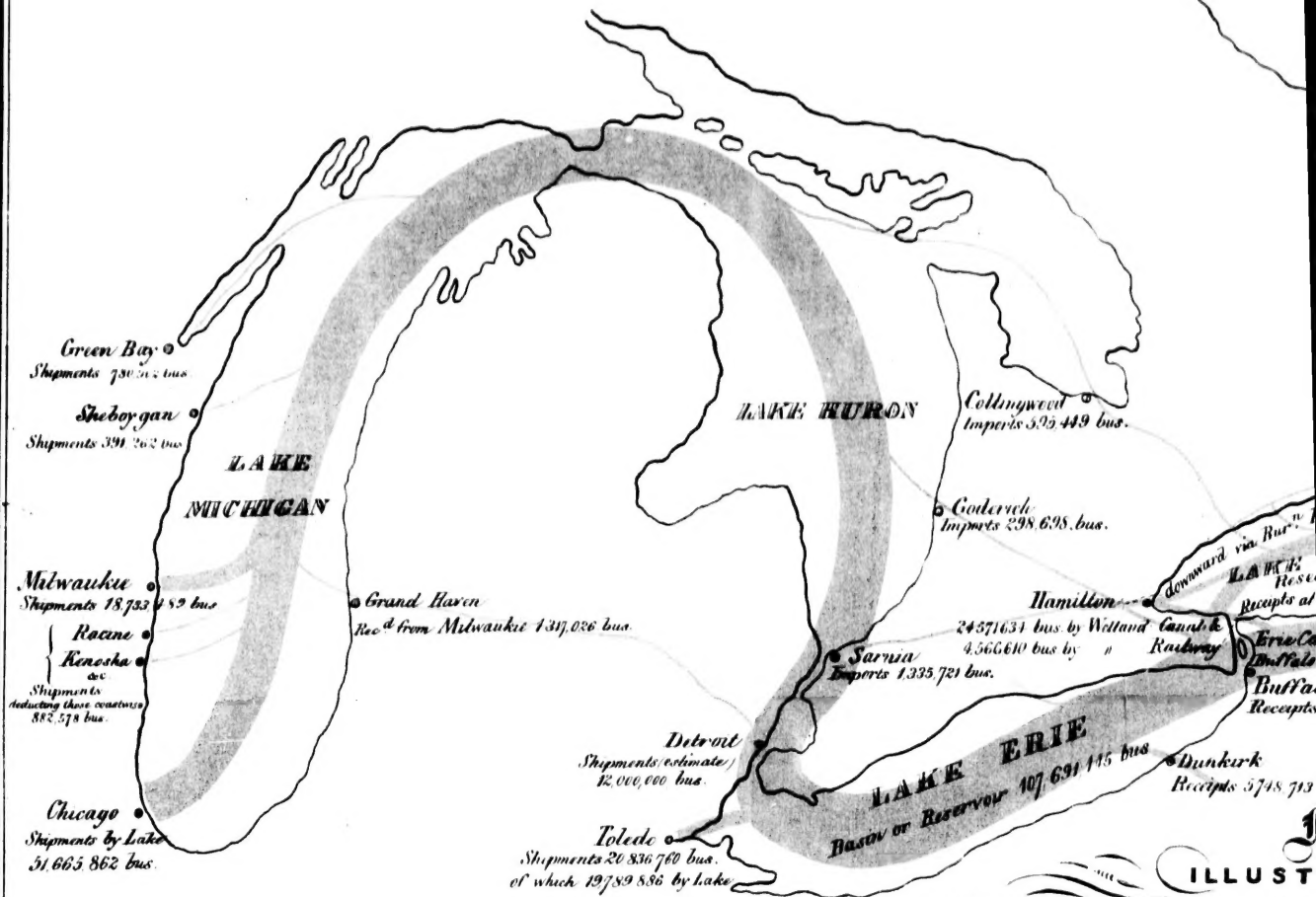
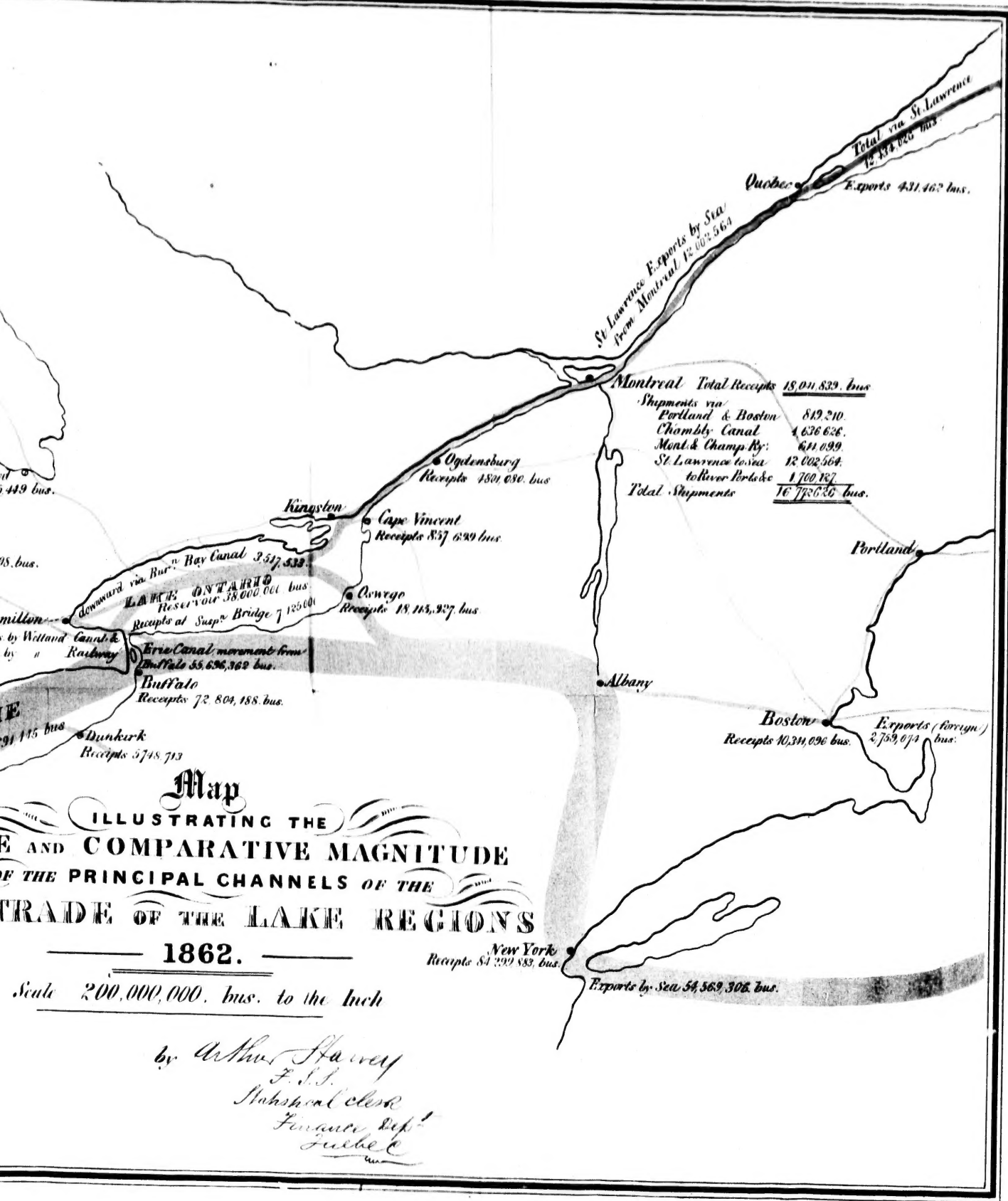


ILLUSTRATION
COURSE AND COMPASS
OF THE PRINCIPAL
GRAIN TRADE OF

Scale 200,000,000



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ARTICLE V.—THE GRAIN TRADE.—*Extract from a paper on "The Graphical Delineation of Statistical Facts," by Arthur Harvey, Esq., Fellow of the British Statistical Society, Statistical Clerk to the Finance Department, Associate Member.*

(Read before the Society, 21st. January, 1863.)

The Grain Trade of the Northern portion of this continent is a subject well suited for graphical delineation, and I present you with a Map shewing the direction and comparative magnitude of its principal channels. I believe it will enable the enquirer easily to perceive where the great current of this commerce flows, and where are its great reservoirs, which must be tapped to bring more of it through Canada.

The chief sources of this Trade are situated, as you will perceive, in the States of Illinois and Wisconsin, and, already a mighty stream, it issues from the Ports of Chicago and Milwaukee. Flowing past Green Bay and Sheboygan, not without receiving important accessions, it leaves Lake Michigan for Lake Huron, its breadth representing no less than 71,137,067 bushels.* Here it gives off what is now a rill, but what may hereafter widen far beyond our present conception; 595,449 bushels found their way last year by Collingwood to Lake Ontario. Another stream of 298,698 bushels diverged at Goderich and one of 1,335,721 bushels at Sarnia. The main current, con-

* In the following calculations, barrels of flour are reduced to bushels of wheat by the usual trade rule of multiplying by five. "Other grain" includes Peas, &c. "Corn" means Indian corn.

tinuing its majestic flow, receives the chief contribution of Michigan at Detroit, and of Indiana and parts of other states at Toledo, and in Lake Erie reaches its grandest development, representing, according to the most careful calculations, no less than 107,691,145 bushels. A branch is given off at Dunkirk, where, last season, 5,748,713 bushels were received, and an important bifurcation occurs near the foot of the Lake, the principal portion; viz, 72,804,188 bushels, going *via* Buffalo, and 29,138,244 bushels passing over the Welland peninsula to Lake Ontario, of which 24,571,634 went by canal and 4,566,610 by railway. Of the Buffalo branch, by far the greater portion; viz, 55,696,362 bushels goes Eastward by the Erie Canal, (the rest entering into consumption or going Eastward by rail,) and of the Welland branch the greater portion seeks the same outlet, *via* Oswego, whence 18,155,927 bushels were forwarded towards Syracuse. The fact thus becomes painfully evident that, in spite of our magnificent canals, on which the smallest locks are 9 feet in depth, 26½ feet in width, and 150 feet in length * with an unfailing supply of water and many other advantages, the Erie canal, 360 miles long, less than six feet in depth, with 71 locks of 110 feet in length by 18 in breadth, practically monopolizes the Western Trade. This fact is proved by the Table of Grain Receipts for the past seven years (which will be found in the appendix) whose admirable form was suggested by Denis Donohoe, Esq,

* DIMENSIONS OF THE ST. LAWRENCE AND WELLAND CANAL LOCKS:

St. Lawrence Canal Locks are	200 feet long between the gates
	45 " in width and
	9 " on sills
and can pass vessels	186 feet long
	44½ broad and
	9 " deep.
Welland Canal Locks are	150 feet long between the gates
	26½ " wide and
	10 " on sills
and can pass vessels	142 " long
	25 " broad and
	10 " deep.

Her Britannic Majesty's Consul at Buffalo, whose figures I have been able to verify, and in some unimportant instances to correct, by the kindness of the United States Collectors of Customs at most of the points mentioned. To make the Table as complete as possible, the receipts at the termini of the two chief inland railways of the States are added. It clearly shews that in no one year since 1856 has Montreal received more than $13\frac{1}{2}$ per cent of the total Eastward movements from the Lake Regions (which include Canada) and of these receipts the greater part was of Canadian grain and flour, which could hardly go elsewhere.

Having followed the Trade in grain thus far, and illustrated what may be called the statistics of production, let us now investigate those of consumption. The Eastern States produce but little wheat, the census of 1860 giving the following figures :—

New England States	Population.	Bus. of wheat grown
Maine.....	628,279	233,877
New Hampshire..	326,073	238,966
Vermont.....	315,098	431,127
Massachusetts....	1,231,066	119,783
Rhode Island.....	174,620	1,131
Connecticut.....	460,147	52,401
Total.....	3,135,283	1,077,285

The consumption must evidently be much in excess of this. Lower Canada is in a somewhat similar position, for by the census of 1861 it contained 1,111,566 people and produced but 2,563,114 bushels of wheat. It is difficult to estimate correctly the quantity of flour an individual uses when there is plenty of food of every other kind around him, but I suppose I shall be far under the mark, if I say every man, woman and child consumes a barrel of flour per annum. This estimate would indicate a deficiency in

New England in 1859-60 of 2,919,844 barrels or 14,599,220 bushels, and in Lower Canada in 1860-61 of 598,944 barrels or 2,994,720 bushels. These calculations are somewhat random, since the harvests in these years may or may not be considered average ones, but as we have not, (what we should have) annual statistics, we must be content with them; they certainly account for a very considerable quantity of the grain received. The exports however dispose of the chief portion of the enormous supply in question. The map shews the way in which about 80,000,000 bushels found their way abroad, and I repeat the figures in a table at the end of the paper. The greater portion of these exports went to Europe, but no inconsiderable quantity, probably 3 to 4,000,000 bushels, was for the supply of Newfoundland, Nova Scotia, and the other maritime Provinces of British North America. I append a table showing the imports of grain into Great Britain last year, by which it will be seen that about half the supply of the mother country came from her descended nation and colonies on this continent.

I conclude this portion of my paper by adverting to the fact that the shipments from the Upper Lake ports do not exactly agree with the receipts at the places where the Trade must and does pass, and that there are similar discrepancies in all the other figures. They are however comparatively trifling, and a closer correspondence was perhaps not to be expected from statistics gathered in different places, from the statements of different persons, made under different conditions.

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